

Split

Work Order ID 79921 -1

79921

Page 1

February-08-12 9:23:29 AM

Item ID: D4456-2

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Fwd Raingutter, RH

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: *MCS*

Date: *12/02/08*

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4456

A

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: *A*

Prog Rev: *A*

2-Deburr if necessary

606176032

B 12-2-29

(24)

(Signature)

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

B 12-2-29

Pro ->

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

51702129

counts
(24)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4456-2 PAR #: _____ Fault Category: water jet opern NCR: Yes No DQA: check Date: 12/06/27
 (small PAB)
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: check Date: 12/6/27

NCR: <u>12-1517</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>12/06/27</u>	<u>#100</u>	Found when filling water jet operator was doing his Fai sheet that the wrong mat was used. operator was to to and should have used to . Rc. hot when pulling mat.	<u>SV</u> <u>12/06/27</u> <u>051042</u>	<u>-Scrap + DASH QTY x22</u> <u>Replace with correct mat.</u> <u>6061 + 6 m 120777</u>	<u>12/2-28</u> <u>12/2-28</u>	<u>S</u> <u>12/06/27</u>	<u>SV</u> <u>12/06/27</u> <u>051042</u>	<u>S</u> <u>12/06/27</u>

NOTE: Date & initial all entries

Work Order ID 79921

February-08 12 9:23:29 AM

79921

Page 2

Item ID: D4456-2 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Fwd Raingutter, RH
 Start Date: 17/02/2012 Start Qty: 20.00 *20* Cust Item ID:
 Required Date: 17/02/2012 Req'd Qty: 20.00 *20* Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	NC BRAKE								
Small Fab	Memo	0.00							
Small Fab	1- Form as per dwg using DT9788 2- After forming cut off tabs as per dwg								
140		0.00							
140	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									
144		0.00							
144	Outsource process - Heat Treat								
Outsource1	Memo	0.00							
Outsource process - Heat Treat									

~~11~~ 11 EF 12-05-03
 (7) (6) EF 12-05-7
 7107
 (16)
 2
 CL 12/05/09 (6)

See 10/07

P/O 16939

W/O: 79921-1

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4456-2 PAR #: _____ Fault Category: Small Job NCR: Yes No QA Date: 12/06/27
 Resolution: cancel Disposition: Scrap QA: N/C Closed: OK Date: 12/10/27

NCR: <u>12-1518</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/05/07	130	3 put were scrap. moved during forming R.C process	S 05/07/07 12/05/07	Scrap + destroy no replace	S 12/05/07	S 12/05/07	S 05/07/07 12/05/07	S 12/05/07

NOTE: Date & initial all entries

Work Order ID 79921

February-08-12 9:23:29 AM

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Page 3

Item ID: D4456-2 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fwd Raingutter, RH
 Start Date: 17/02/2012 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 17/02/2012 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

146	Receive & Inspect for Damage & Mat'l Certs	0.00							
-----	--------------------------------------------	------	--	--	--	--	--	--	--

146

Packaging

Memo

0.00

Packaging

QC6 → S 12/04/12

(X6)

Pto →

150	Chemical Conversion Coat per QSI005 4.1	0.00							
-----	-----------------------------------------	------	--	--	--	--	--	--	--

150

HandFinish

Memo

0.00

Hand Finishing

6 2LG 12-6-4

160	QC3- Inspect Part Finish	0.00							
-----	-------------------------------------	------	--	--	--	--	--	--	--

160

QC

QC7 Memo

0.00

S 12/04/12

(X6)

-2-

Quality Control

W/O: 79921-1 Rem. change

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
12/06/01	# 147	Add step for Qc 6 inspection + ac 7 at Seq 160	ET	12.06.01			S 12/06/01

Part No: D4456-2 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 79921

79921

Page 4

Item ID: D4456-2

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Fwd Raingutter, RH

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

Identify as per dwg & Stock Location: 12

0.00

170

Packaging

Memo

0.00

Packaging

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

(62)

12/6/18

12/6/18

mk
12-06-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

February-08-12 9:23:32 AM

Page 1

Work Order ID: 79921

79921

Parent Item: D4456-2

D4456-2

Parent Item Name: Fwd Raingutter, RH

Start Date: 17/02/2012

Required Date: 17/02/2012

Start Qty: 20.00

Required Qty: 20.00

Comments: IPPREV:A 11.11.21 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M60610S.032		Purchased	No			100	sf	41.0000	0.125	2.631579			
M60610S 032									**	B12-2-14			
6061 0 SHEET .032													

Location

Loc Qty

Loc Code

MAT021

41

119686

41

6061.032 T.O.

120777

~~112218~~

120777

~~112~~

24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order: 79470

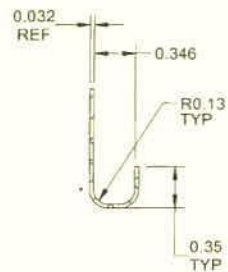
Part Number: D4456-2

Page 1 of 1

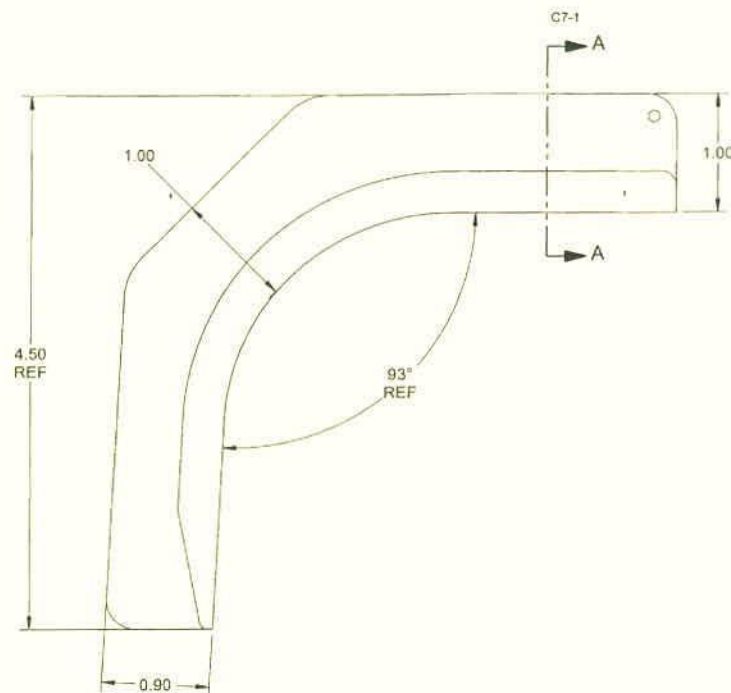
X	First Article	X	Prototype
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Measured by: <u>RB</u>		Audited by: <u>S</u>		Prototype Approval:	
Date: <u>12-2-29</u>		Date: <u>12/02/29</u>		Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



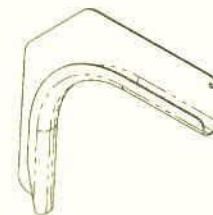
SECTION A-A D4456-1



D4456-1 FWD RAINGUTTER, LH

NOTES:

- 1) MATERIAL: MAKE FROM D4456-1F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING



79921
R202-7
RELEASED
2012-01-17
JW

A NEW ISSUE		RF	11.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.11.17		

DART AEROSPACE USA, INC.	
KENT, WA	
DRAWING NO.	REV. A
D4456	SHEET 1 OF 8
TITLE	SCALE
RAINGUTTER	NTS

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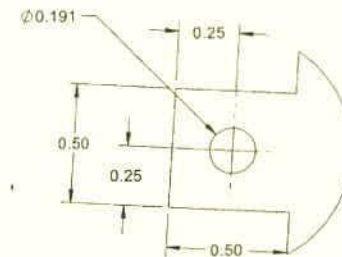
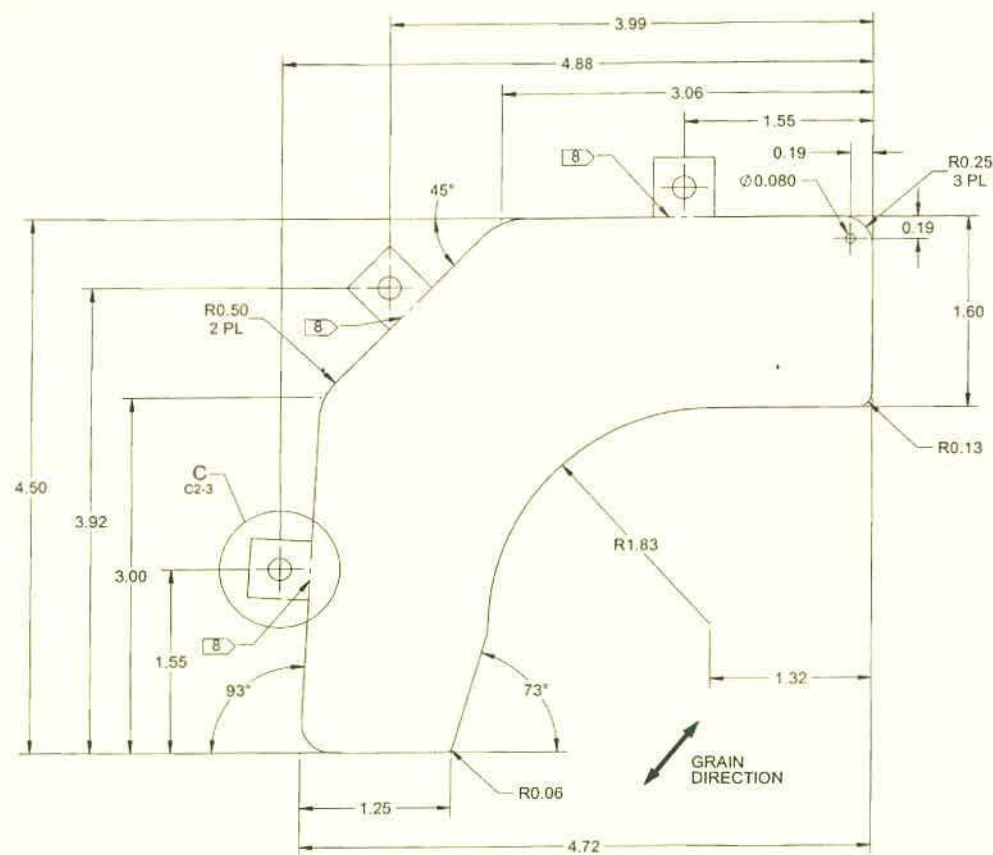
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DETAIL C C7-3
TYP C6-3
D5-3

79921

RELEASED
2012-01-17
JUN

D4456-1F FWD RAINGUTTER FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-O ALUMINUM SHEET 0.032 THICK
PER AMS QQ-A-250/11 OR AMS 4025
REF DART SPEC M6061-OS.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
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CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4456	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		RAINGUTTER	NTS
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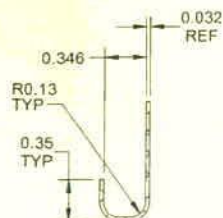
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

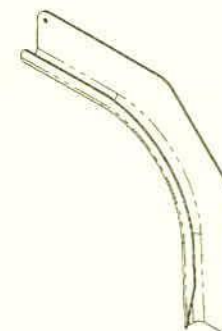
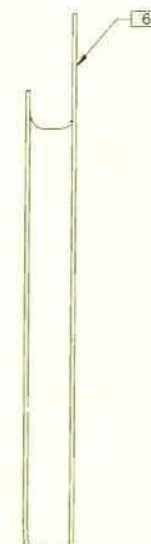
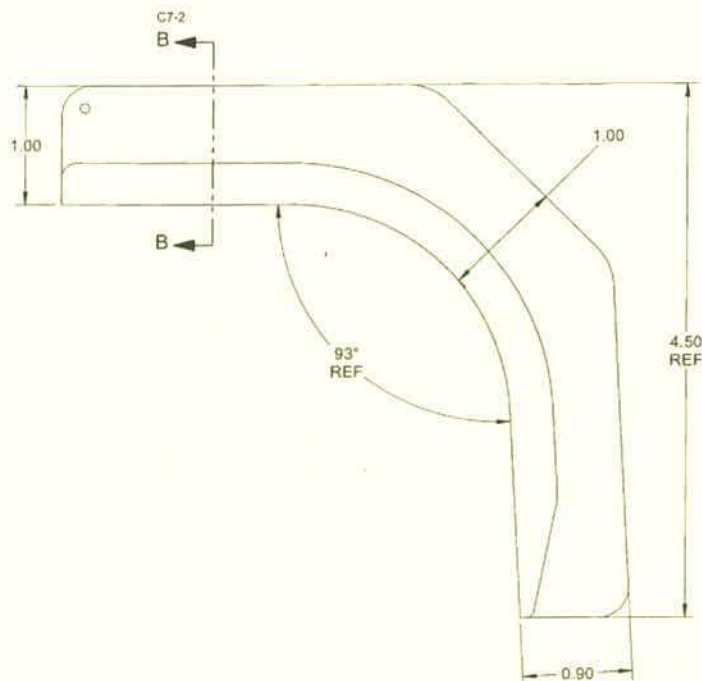
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



SECTION B-B D6-2



79921

RELEASED
2012-01-17

D4456-2 FWD RAINGUTTER, RH

NOTES:

- 1) MATERIAL: MAKE FROM D4456-1F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.03 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO. D4456	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 8	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FWD RAINGUTTER, RH	1:1
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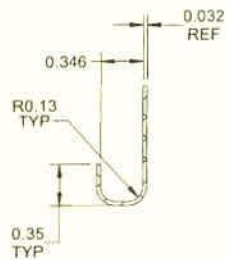
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

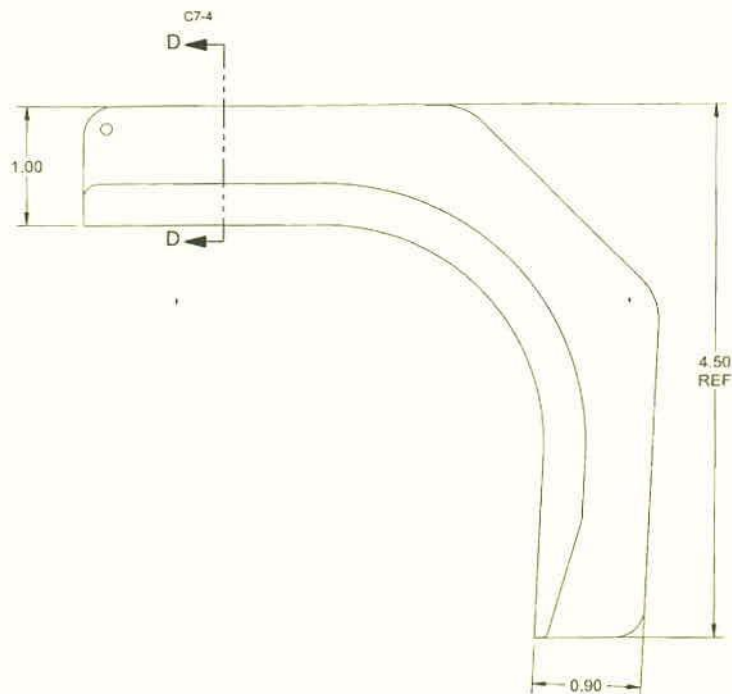
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

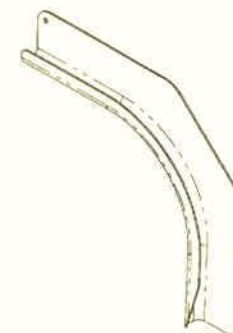
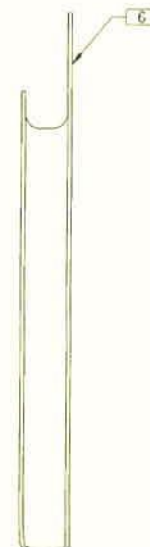
NOTE: Date & initial all entries



SECTION D-D C6-4



D4456-3 AFT RAINGUTTER, LH



79921

RELEASED
2012-01-17

NOTES:

- 1) MATERIAL: MAKE FROM D4456-3F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PFR DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

DESIGN	RF	DART AEROSPACE USA, INC.	
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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4456	SHEET 4 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
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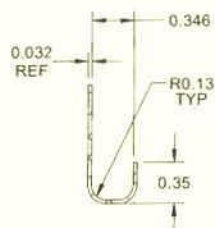
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

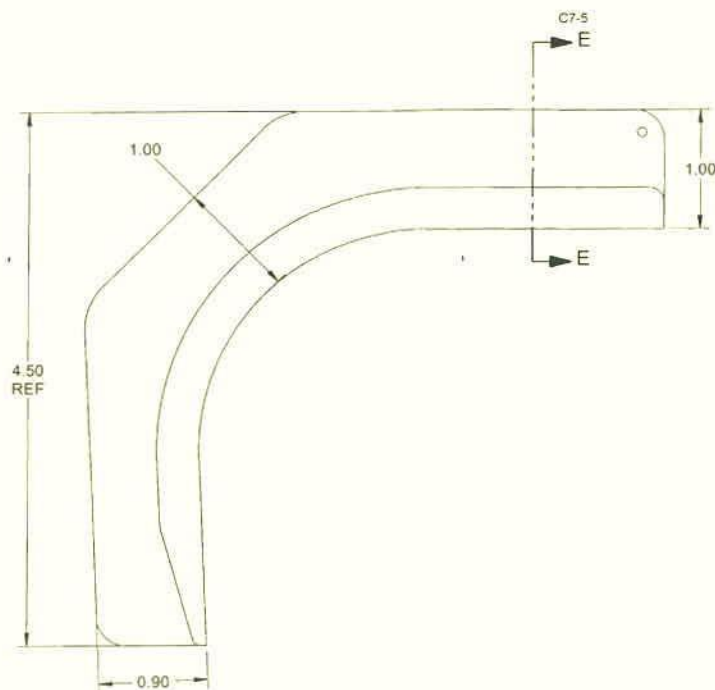
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

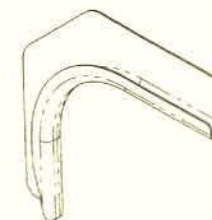
NOTE: Date & initial all entries



SECTION E-E D4-5



D4456-4 AFT RAINGUTTER, RH



19921

RELEASED
11-11-17

NOTES:

- 1) MATERIAL: MAKE FROM D4456-3F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

DESIGN	RF	DART AEROSPACE USA, INC. KENT, WA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. D4456	REV. A
MFG. APPR.	RF		SHEET 5 OF 8
APPROVED	RF	TITLE RAINGUTTER	SCALE
DE APPR.	RF		NTS
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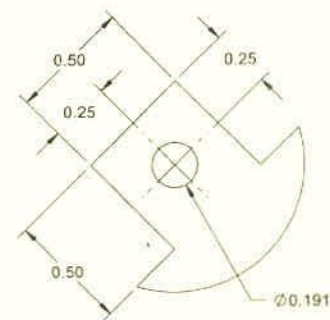
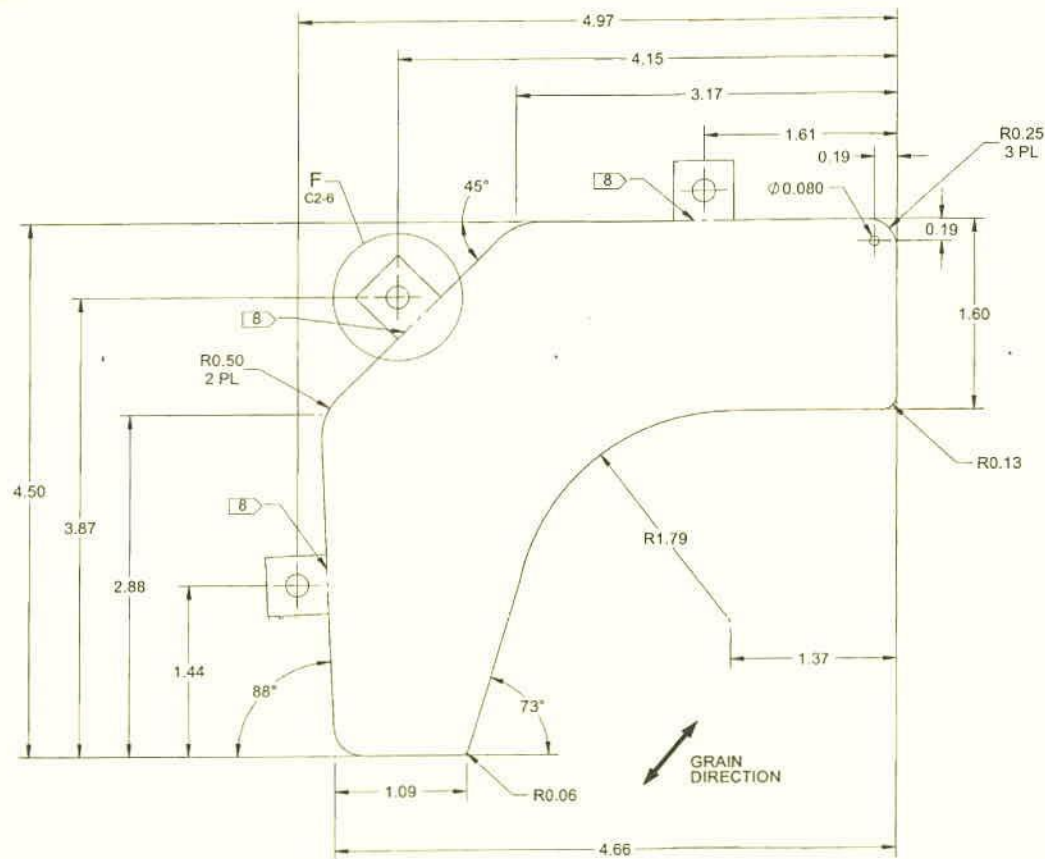
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DETAIL F
TYP

79921

RELEASED
2012-01-17
JMP

D4456-3F AFT RAINGUTTER FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-O ALUMINUM SHEET 0.032 THICK
PER AMS QQ-A-250/11 OR AMS 4025
REF DART SPEC M6061-OS.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	RF	D4456	SHEET 6 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	RAINGUTTER	NTS
DATE	11.11.17	COPYRIGHT © 2011 BY DART AEROSPACE USA, INC.	
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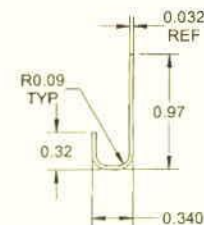
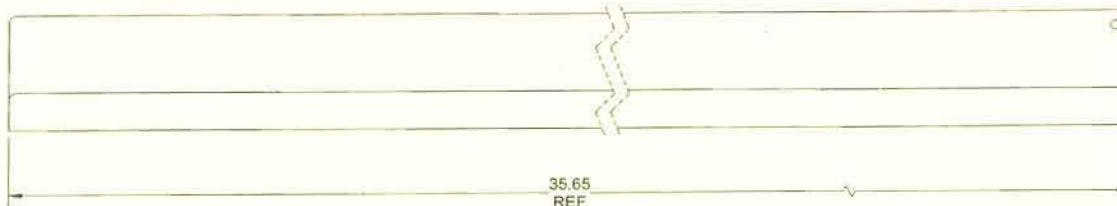
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



79921

2012-01-17

D4456-5 CENTER RAINGUTTER

NOTES:

- 1) MATERIAL: MAKE FROM D4456-5F FLAT PATTERN
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QS, 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.17 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4456	SHEET 7 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	RAINGUTTER	NTS
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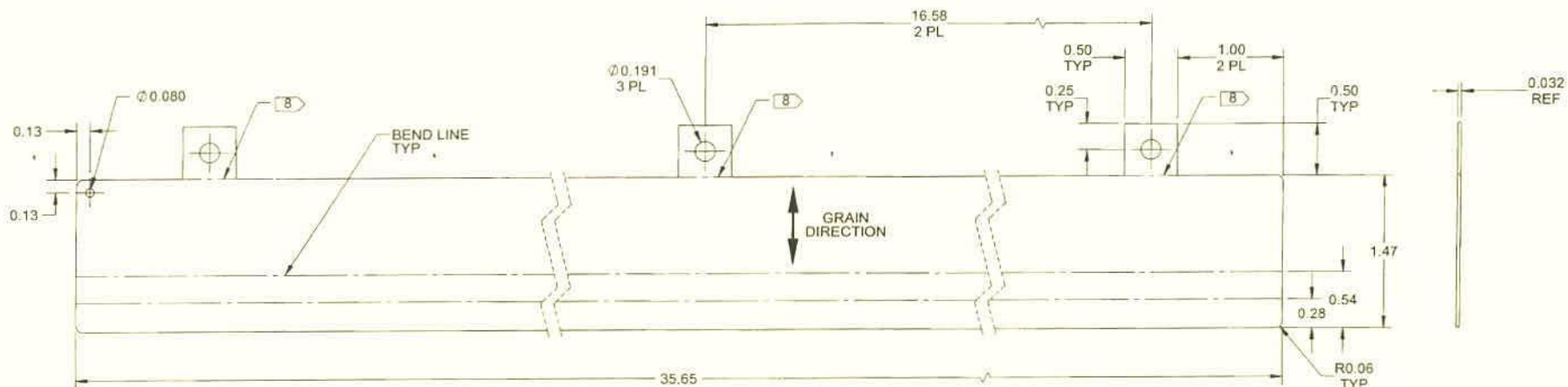
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4456-5F CENTER RAINGUTTER FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET 0.032 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027 OR ASTM B209
REF DART SPEC M6061T6S.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.17 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4456	SHEET 8 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	RAINGUTTER	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Metcor Inc.

Metcor Inc.
560, boul. Arthur-Sauvé
St-Eustache (Québec) J7R 5A8
Tél. : 450 473-1884
Télécopieur/Fax administration : 450 491-8488
Télécopieur/Fax production : 450 491-8488

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
175904	

175904
PART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K3A1KT

LIVRÉ À / shipped to:
DART AEROSPACE
1270 ABERDEEN
HAWKESBURY

ON K3A1KT

DEMANDE DU CLIENT Customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
15286		AL-6081		

SPÉCIFICATIONS DU PROCÉDÉ processing specifications

1. ABERDEEN
2. LE 4813 TO CONDITION T2

PROCESSEMENT processing	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
40 - 60 %ACS		31	40 - 47 %ACS
85 HREW/MIN		31	85 - 90 HREW/MIN

DURETÉE MESURÉE EN HR16TW = T5-T6
HR16TW

PIÈCE part	POIDS weight	DESCRIPTION DES PIÈCES parts description
1		D4458-1 (11) FWD RAINGUTTER (8) D4458-2 FRD RAINGUTTER (14) D4458-4 AFT RAINGUTTER CONTENANT: 1 BOÎTE DE CARTON

COMMENTAIRES / comments

RECTEUR / Inspector

[Signature]

DATE: 2012-05-18

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
175904	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

COMMANDE DU CLIENT customer po.	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
16939		AL-6061		

SPECIFICATIONS DU PROCÉDÉ

processing specifications

SOL ANNEAL

SINGLE AGING TO CONDITION T6

5 12/6/01

EXIGENCE / requirement	SPECIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCTIVITY	40 - 50 %IACS	31 (60kHz)	46 - 47 %IACS
HARDNESS	85 HREW MIN	31	88 - 90 HREW DURETEE MESUREE EN HR15TW = 78-79 HR15TW

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
31	1	D4456-1 (11) FWD RAINGUTTER REF: 79920 (6) D4456-2 FRD REF: 79921 RAINGUTTER (14) D4456-4 AFT REF: 79923 RAINGUTTER CONTENANT: 1 BOÎTE DE CARTON

Operation	Temp. spécifiée Specified Temp	Temps de trempe Spécifié Specified Soak Temp	Atmosphère	Carbone Carbon Potential	Q-Media Q-Temp	Four # Furnace #	Date Départ Start Date	Heure d'entrée Time In	Heure de sortie Time Out	Date Complétée Date complete
1.00 CONT. INIT.										
2.00 Degrease										
3.00 PREPARING	COMPTAGE									
4.00 PREHEAT 1	529°C	0:30	air			701				

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5493

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
175904	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

Operation	Temp. spécifiée Specified Temp	Temps de temps Spécifié Specified Soak Temp	Atmosphere	Carbone Carbon Potential	Q-Media Q-Temp	Four # Furnace #	Date Départ Start Date	Heure d'entrée Time In	Heure de sortie Time Out	Date Complétée Date complete
5.00 WATER TEM										
6.00 SOL ANNEA	529°C	0:30 +/-5 MIN	AIR		WATER 32MAX	701				
7.00 QUENCHDE										
8.00 WATER TEM										
9.00 PREPARINC										
10.00 AGE HARDE	177°C	7 hrs	air			702				
11.00 HARDEN INS										
12.00 FINAL INSP							05-16-2012			05-16-2012

COMMENTAIRES / comments

APPROUVÉ par / Approved by:



DATE: 2012-05-17

/ Nous certifions que toute l'information comprise sur ce rapport est exacte et conforme aux requis du client. We certify that all the information on this report is exact and in accordance with the order requirements.

